

Claims

- [c1] 1. A method of operating a gas turbine engine for testing, comprising the steps of:
- providing an aircraft on a tarmac, said aircraft having a gas turbine engine with an inlet;
 - selecting a power setting for said engine that is capable of producing a vortex between said inlet and said tarmac; and
 - inhibiting formation of said vortex.
- [c2] 2. The method of claim 1, wherein said inhibiting step comprises placing an object between said inlet and said tarmac.
- [c3] 3. The method of claim 2, wherein said placing step comprises removably placing said object between said inlet and said tarmac.
- [c4] 4. The method of claim 1, wherein said inhibiting step comprises altering a supply of air to a portion of said inlet adjacent said tarmac.
- [c5] 5. The method of claim 1, wherein said engine is located on a wing of said aircraft.
- [c6] 6. The method of claim 1, wherein said aircraft remains static on said tarmac while testing said engine.
- [c7] 7. The method of claim 1, wherein said power setting comprises up to a full power setting.
- [c8] 8. A method of preventing vortex formation, comprising the steps of:
- providing an aircraft on a tarmac, said aircraft having a gas turbine engine with an inlet;
 - operating said engine;
 - determining whether said operating step is likely to produce a vortex between said inlet and said tarmac; and
 - placing an object between said tarmac and said inlet should said determining step indicate a likelihood of said vortex.

- [c9] 9. The method of claim 8, wherein said placing step comprises removably placing said object between said tarmac and said inlet.
- [c10] 10. The method of claim 8, wherein said engine is located on a wing of said aircraft.
- [c11] 11. The method of claim 8, wherein said operating step occurs while said aircraft remains static on said tarmac.
- [c12] 12. A method of operating a gas turbine engine mounted on an aircraft located on a tarmac at an elevated engine pressure ratio (EPR) greater than a threshold EPR, comprising the steps of:
- placing an object between said tarmac and said engine; and
 - operating said engine at said elevated EPR;
- wherein, without said object, operating said engine at said threshold EPR would not create an inlet vortex, but operating said engine at said elevated EPR would create said inlet vortex.
- [c13] 13. The method of claim 12, wherein said placing step comprises removably placing said object between said tarmac and said engine.
- [c14] 14. The method of claim 12, wherein said engine is located on a wing of said aircraft.
- [c15] 15. The method of claim 12, wherein said operating step occurs while said aircraft remains static on said tarmac.
- [c16] 16. The method of claim 12, wherein said elevated EPR is up to a full power setting.
- [c17] 17. In a method of performing a test including a step of operating a gas turbine engine at an engine pressure ratio that typically requires removing said engine from an aircraft located on a tarmac and placing said engine on a test stand, wherein the improvement comprises positioning a movable object between said engine and said tarmac to allow said engine to remain on said aircraft for said test.

- [c18] 18. A suppressor for preventing a vortex between an inlet of a gas turbine engine on an aircraft and a tarmac, comprising:
- a base facing said tarmac; and
 - an inclined surface extending in a direction from said tarmac towards said inlet at an angle to said base;
 - wherein said suppressor prevents formation of said vortex.
- [c19] 19. The suppressor of claim 18, wherein said angle is approximately 45 ° .
- [c20] 20. The suppressor of claim 18, wherein said suppressor is portable.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100